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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,153	01/11/2002	Iwao Saikatsu	0171-0809P-SP	5805
2292	7590	03/30/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			WYROZEBSKI LEE, KATARZYNA I	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/042,153		SAIKATSU ET AL. <i>eb</i>	
	Examiner		Art Unit	
	Katarzyna Wyrozebski Lee		1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

In view of applicant's amendment mailed on 1/16/2004 following office action is final as necessitated by amendment.

In the amendment filed on 1/16/2004 the applicants have narrowed numerical range of cashew dust, which range was not present in original claims. The applicants have also provided declaration that discloses comparative examples 4 and 5 having amounts of cashew dust of 13 and 15. The applicants have also added new claims 7-9 reciting glass fibers, potassium titanate fibers and both.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-5 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by KINOUCHI (US 6,372,817).

The discussion of the disclosure of the prior art of KINOUCHI from paragraph 4 of the office action mailed on 10/16/2003 is incorporated here by reference.

3. Claims 1-5, 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by NAKAMURA (US 6,596,789).

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Example 5 in table II of NAKAMURA teaches following composition:

TABLE 2

		Ex 1	Ex 2	Ex 3	Ex 4	Ex 5	Ex 6	Ex 7
Formu- lation (pbw)	Aramid fibers	10	10	10	10	6	10	10
	Glass fibers	10	10	10	10	15	10	10
	Calcium carbonate	20	20	20	20	25	20	20
	Barium sulfate	19	19	19	19	7	19	19
	Cashew dust	15	15	15	15	5	15	15
	Graphite	3	3	3	3	10	3	3
	Rubber dust	8	8	8	8	15	8	8
	Phenolic resin	A	B	C	E	A	F	G
		15	15	15	15	17	15	15
Per- form- ance	Short-time moldability	Exc	Good	Exc	Exc	Exc	Exc	Exc
	Noise performance	Exc	Good	Exc	Poor	Good	Exc	Exc
	Functional stability	Good	Exc	Good	Exc	Good	Good	Good
	Fade resistance	Good	Exc	Good	Good	Good	Good	Good

Using the same formulas the applicants utilized to calculate the volume percentage in the response, the amount of cashew dust is 5 wt % or 6.01 vol %. (Specific gravity of glass fiber is 2.54 and specific gravity of calcium carbonate is 1.4)

Col. 4 (lines 40-42) of the prior art of NAKAMURA also teaches potassium titanate fibers.

In the light of the above disclosure the prior art of NAKAMURA anticipates requirements of claims rejected above.

4. Claims 1-5, 8 are rejected under 35 U.S.C. 102(e) as being anticipated by YAMANE (US 6,451,872).

Table II of the prior art of YAMANE discloses following composition:

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TABLE 2

	Examples										
	1	2	3	4	5	6	7	8	9	10	11
Phenolic resin	10	11.5	10	11.5	10	11.5	11.5	11.5	11.5	10	10
Cashew dust	5.5	2	4	2	5.5	6	8	8	2	5.5	5.5
Barium sulfate	18	35	20	35	18	28.5	35	35	35	18	18
Calcium carbonate	5				5					5	5
Slaked lime	2	2	2	2	2	2	2	2	2	2	2
Graphite	5.5	15	7	15	5.5	5	5	15	15	5.5	5.5
Mica	10	12.5		12.5	10	10		14.5	12.5	10	10
Vermiculite			12								
Ceramic fibers											
Steel fibers		8		8					8		
Copper fibers	16		14		16					16	16
Aramid fibers		3	1	3		3	3	3	3		
Potassium titanate fibers	18		19		18	23	24.5			18	18
Sulfur											
Zirconium silicate											
Reclaimed tire dust		1	1	1		1	1	1	1		
SBR											
Silicone rubber											
Rubber composite	A	B	C	D	E	F	G	H	I	J	K
particles	10	10	10	10	10	10	10	10	10	10	10
Total (wt %)	100	100	100	100	100	100	100	100	100	100	100
Wear test	good	good	good	good	good	good	good	good	good	good	good
Heat resistance test	good	good	good	good	good	good	good	good	good	good	good
Noise test	good	good	good	good	good	good	good	good	good	good	good
High-speed braking vibration test	good	good	good	good	good	good	good	good	good	good	good
Counter surface attack test	good	good	good	good	good	good	good	good	good	good	good

Again, with the same formula as applicants' utilized, the amount of cashew dust in the composition, especially examples 1-6, 9-11 is less than 7 vol %. (Slaked lime is a mixture of silica and calcium carbonate assumed 1:1 ratio). However, the amount of slaked lime is small and does not affect to great degree the volume amount of cashew dust when entire composition is taken into consideration.

In the light of the above disclosure, the prior art of YAMANE anticipates requirements of claims rejected above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

6. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over KINOUCHI (US 6,372,817) or NAKAMURA (US 6,596,789) or YAMANE (US 6,451,872) either one of which in view of KOBAYASHI (US 5,383,963)

The discussion of the disclosure of KINOUCHI or NAKAMURA or YAMANE from paragraphs 2-4 of this office action is incorporated here by reference.

The difference between the present invention and the disclosure of the prior art of KINOUCHI or NAKAMURA or YAMANE is recitation of the dimension of the fibers that can be utilized in the friction material composition as well as recitation of both glass fibers and potassium titanate fibers.

The discussion of the disclosure of the prior art of KOBAYASHI from paragraph 8 of the office action mailed on 10/16/2003 is incorporated here by reference.

In the response mailed on 1/14/2004 the applicants have argued following:

a) the prior art of KINOUCHI does not teach the amount of cashew dust in 10 vol. % or less.

With respect to the above argument the examiner would like to point the applicants to col. 3, lines 5-8 of KINOUCHI. The specification teaches a range of cashew dust of 3-30 wt %. Utilizing applicants' own formula the lower limits of the prior art of KINOUCHI of 3 and 5 fall

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within 10 % volume as required by the present invention. The examiner cannot rely only on the examples of the prior art of KINOUCHI but has to consider the entire disclosure. Especially when the amount of cashew dust of KINOUCHI is adjusted to prevent squealing and cracking. In view of the above the prior art of KINOUCHI is still applicable against present claims and submission of the declaration does not overcome it.

The declaration submitted teaches amounts of cashew dust of 13 and 15, whereas specification of KINOUCHI enables amounts lower than this.

b) The cashew dust of KINOUCHI is coated with rubber.

With respect to the above argument, the applicant's claims do not exclude coating on the surface of the cashew dust. In addition, the presence of the rubber coating in amount of 0.6 wt % per amount of cashew dust does not impart the properties of the composition. The composition of KINOUCHI still results in no or little squealing. As the prior art of KINOUCHI stated, the amount of cashew dust is utilized to prevent squealing and cracking.

c) The prior art of KOBAYASHI does not teach the amount of the cashew dust required by the present invention.

With respect to the above argument, the prior art of KOBAYASHI was utilized to provide for the dimensions of the fibers required by the claim 6 of the present invention. Currently it is also utilized to reject newly added claims 7-9 for use of glass fiber and/or potassium titanate fiber. It was not intended for use of cashew dust.

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The applicants' arguments with respect to the prior art of HARA and SASSAKI are considered moot due to discontinuation of these disclosures against present claims.

Applicant's amendment to the claims required new search and provided new references as stated in this office action.

In view of the above discussion, since as MPEP dictates all claim limitations are taught or suggested by the prior art of record.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

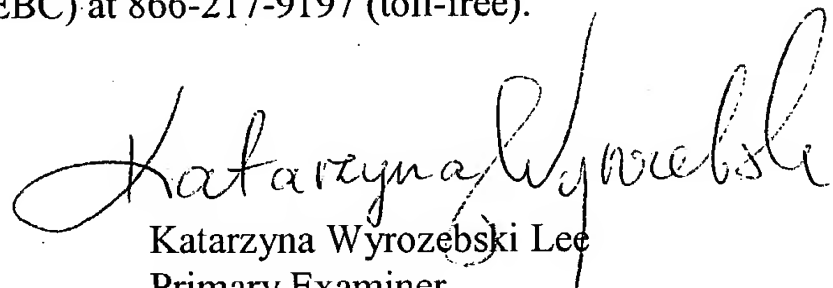
Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Katarzyna Wyrozebski Lee
Primary Examiner
Art Unit 1714

kiwl
March 23, 2003